



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,462	11/07/2003	Sang Kyun Lee	P23471	8284
7055 7590 03/13/2008 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER CHEEMA, UMAR	
			ART UNIT 2144	PAPER NUMBER
			NOTIFICATION DATE 03/13/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/702,462	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> UMAR CHEEMA	<b>Art Unit</b> 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. This action is response to Request for Continued Examination (RCE) Transmittal filed on 19 February 2008. Claims 1-11 are pending with claims 1, 8 and 10 being the Independent claims. Claims 1 and 7 have been amended.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. **Claims 1-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Heitkamp et al (Heitkamp) (US 6,970, 961) in view of Jeffries (US 6,009,479).

Regarding **claim 1**, Heitkamp substantially discloses the invention as claimed a network system connected with multiple master devices (see abstract; a network with redundant

master and slave controllers), comprising: a plurality of slave devices connected to a network that transmit and receive data through the network (see abstract, fig. 2; slave controllers); a master device configured to receive a control command and to output state information in response to the control command to control the plurality of slave devices (see abstract, col. 1, lines 28-35; master device controller that can read/write data and commands with the slave devices); and a network manager configured to generate the control command and to automatically search for a unique address associated with the master device, or, when the search is unsuccessful, assign a specific address to the master device to install the master device to the network when the master device is newly connected to the network (see abstract, col. 1, lines 40-51).

Heitkamp does not explicitly disclose wherein said a network manager configured to generate the control command and to automatically search for a unique address associated with the master device, or, when the search is unsuccessful, assign a specific address to the master device to install the master device to the network when the master device is newly connected to the network. However in the same field of invention Jeffries discloses a network manager configured to generate the control command and to automatically search for a unique address associated with the master device, or, when the search is unsuccessful, assign a specific address to the master device to install the master device to the network when the master device is newly connected to the network (see abstract, col. 2, lines 8-25; automatically assigning unique addresses to new devices that are inserted on the bus while the bus is operating, thereby supporting “hot-pluggable” devices). Therefore it would have been

Art Unit: 2144

obvious to one of the ordinary skill in the art of networking at the time of the invention to combine the teaching of Heitkamp and Jeffries for a network system connected with multiple master devices configured to generate the control command and to automatically assign a network addresses to the master device to connect the master device to the network when the master device is newly connected to the network. Motivation for doing so would have been that automatically assigning address the network manager will only have to identify hardware rather than address identification (Jeffries: see col. 4, lines 37-40).

Regarding **claim 2**, Heitkamp discloses the network system as set forth in claim 1, wherein the network manager comprises: a master-device discriminator that determines whether the master device is newly connected to the network and that determines whether a unique address is associated with the master device (see col. 1, lines 28-35, 42-51, col. 2, lines 16-24); a search packet transmitter (see col. 3, lines 34-44) that generates a search packet for searching for the unique address associated with the master device and that transmits the generated search packet to the master device (see col. 1, lines 52-67); and an address notifier that transmits the unique address of the master device to a plurality of home appliances connected to the network (see col. 1, lines 55-67, col. 2, lines 5-10).

Regarding **claim 3**, Heitkamp discloses the network system as set forth in claim 2, wherein the address notifier comprises: a plug-in notifier that notifies the plurality of

Art Unit: 2144

home appliances of the Unique address of the master device when the unique address is searched and is found for the master device (see col. 1, lines 55-67); and a specific address notifier that automatically generates a specific address when the search of the unique address is not successful and transmits a specific address notification packet for the notification of the generated specific address to the plurality of home appliances (see abstract, col. 1, lines 40-51, lines 52-67).

Regarding **claim 4**, the combination of Heitkamp and Jeffries disclose the network system as set forth in claim 3, wherein the specific address notifier automatically generates a specific address when a slave device is additionally connected to the network (see Heitkamp: col. 5, lines 10-15, lines 48-57, Jeffries: col. 2, lines 16-25) and transmits a specific address notification packet for the notification of the generated specific address to the master device (see col. 1, lines 40-51, lines 52-67).

Regarding **claim 5**, Heitkamp discloses the network system as set forth in claim 2, wherein the network manager further comprises: a counter connected to the search packet transmitter that counts the number of attempts to search for the unique address associated with the master device (see col. 3, lines 34-44).

Regarding **claim 6**, Heitkamp discloses the network system as set forth in claim 5, wherein the counter comprises: a determinator that determines when the search of the unique address corresponding to the master device is unsuccessful, and that further

determines when the number of attempted searches exceed a predetermined number of searches (see abstract, col. 1, lines 28-35); and a specific address requestor that outputs a control signal to request the specific address notifier to automatically generate a specific address when the address search is determined by the determiner to be unsuccessful (see col. 1, lines 28-35, lines, 42-51).

Regarding **claim 7**, Heitkamp discloses the network system as set forth in claim 2, wherein the network manager further comprises: a data packet transmitter that generates a data packet containing state information of an existing master device and the plurality of slave devices connected to the network and transmits the generated data packet to the master device (see col. 1, lines 60-67) and the existing master device, when the master device is newly connected to the network (see col. 1, lines 40-51).

**Regarding claim 8**, Heitkamp substantially discloses the invention as claimed a method of operating a network system connected with, at least one master device, the method (see abstract; a network with redundant master and slave controllers), comprising: connecting a new master device to a network with which a plurality of slave devices are connected (see abstract, fig. 2; master controllers); searching for a unique address associated with the master device (see col. 1, lines 40-51); and notifying a plurality of home appliances connected to the network that the master device comprising the unique address has been appropriately connected to the network (see col. 3, lines 63-67, col. 4, lines 1-4).

Heitkamp does not explicitly disclose wherein said notifying a plurality of home appliances connected to the network that the master device comprising the unique address has been appropriately connected to the network. However in the same field of invention Jeffries discloses notifying a plurality of home appliances connected to the network that the master device comprising the unique address has been appropriately connected to the network (see abstract, col. 2, lines 15-25, 39-49). Therefore it would have been obvious to one of the ordinary persons in the art of networking at the time of invention to combine the teaching of Heitamp and Jeffries for a method of operating a network system connected with, at least one master device which a plurality of slave devices are connected and notifying a plurality of home appliances connected to the network that the master device comprising the unique address has been appropriately connected to the network. Motivation for doing so would have been that automatically assigning address the network manager will only have to identify hardware rather than address identification (Jeffries: see col. 4, lines 37-40).

Regarding **claim 9**, the combination of Heitkamp and Jeffries disclose the method as set forth in claim 8, wherein notifying further comprises: repeating a search of the unique address associated with the master device (Heitkamp: see col. 1, lines 40-51); and automatically generating a specific address and assigning the generated specific address to the master device when the search of the unique address is unsuccessful (Jeffries: see abstract, col. 2, lines 16-25).



Regarding **claim 10**, Heitkamp substantially discloses the invention as claimed a method of operating a network system connected with at least one master device, the method (see abstract; a network with redundant master and slave controllers), comprising: connecting a home appliance to a network with which a plurality of slave devices and an existing master device have been connected (see fig. 2, col. 3, lines 63-67, col. 4, lines 1-4); notifying at least one of the plurality of slave devices that the home appliance has been connected to the network by transmitting a unique address assigned to the home appliance to the at least one of the plurality of slave devices (see col. 1, lines 52-67, col. 2, lines 5-10); determining whether the home appliance is a master device and transmitting, to the home appliance, a data packet containing state information of at least one of the plurality of slave devices when it is determined that the home appliance is the master device (see col. 4, lines 24-32); and transmitting the data packet to the existing master device when the existing master device is used along with the master device (see col. 1, lines 52-67).

Heitkamp does not explicitly disclose wherein said notifying at least one of the plurality of slave devices that the home appliance has been connected to the network by transmitting a unique address assigned to the home appliance to the at least one of the plurality of slave devices. However in the same field of invention Jeffries discloses notifying at least one of the plurality of slave devices that the home appliance has been connected to the network by transmitting a unique address assigned to the home appliance to the at least one of the plurality of slave devices (see abstract, col. 2, lines 15-25, 39-49). Therefore it would have been obvious to one of the ordinary persons in

the art of networking at the time of invention to combine the teaching of Heitkamp and Jeffries for a method of operating a network system connected with, at least one master device which a plurality of slave devices are connected and notifying at least one of the plurality of slave devices that the home appliance has been connected to the network by transmitting a unique address assigned to the home appliance to the at least one of the plurality of slave devices. Motivation for doing so would have been that automatically assigning address the network manager will only have to identify hardware rather than address identification (Jeffries: see col. 4, lines 37-40).

Regarding **claim 11**, the combination of Heitkamp and Jeffries disclose the method as set forth in claim 10, wherein the determining further comprises: notifying an additionally connected slave device of the unique address of the master device when the connected slave device is connected to the network (see Heitkamp: col. 5, lines 10-15, lines 48-57, Jeffries: abstract, col. 2, lines 15-25).

### ***Response to Arguments***

3. Applicant's arguments filed on 28 January 2008 have been fully considered but they are not persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address applicant's main point of contention. Applicant's arguments include:

**A.** Regarding claims 1, 8 and 10, Applicant argues that Heitkamp in view of Jeffries does not teach or suggest:

1. “a network manager configured to generate the control command and to automatically search for a unique address associated with the master device, or, when the search is unsuccessful, assign a specific address to the master device to install the master device to the network when the master device is newly connected to the network.”
2. “notifying a plurality of home appliances connected to the network that the master device comprising the unique address or the assigned specific address has been appropriately connected to the network.”
3. “the process of connecting a new home appliance to the network, including the other features.”

**As for Point A**, it is the Examiner’s position that Heitkamp in view of Jeffries discloses or suggests:

1. a network manager configured to generate the control command and to automatically search for a unique address associated with the master device, or, when the search is unsuccessful, assign a specific address to the master device to install the master device to the network when the master device is newly connected to the network (see Jeffries: abstract, col. 2, lines 8-25; automatically assigning unique addresses to new devices that are inserted on the bus while the bus is operating, thereby supporting “hot-pluggable” devices).
2. notifying a plurality of home appliances connected to the network that the master device comprising the unique address or the assigned specific address has been

appropriately connected to the network (see Jeffries: abstract, col. 2, lines 15-25, 39-49; automatically assigning unique addresses to new devices that are inserted on the bus while the bus is operating, thereby supporting "hot-pluggable" devices; setting and identifying address commands).

3. the process of connecting a new home appliance to the network, including the other features (see Heitkamp: fig. 2, col. 3, lines 63-67, col. 4, lines 1-4).

Thus it is the Examiner's position that the 35 U.S.C 103(a) Rejection to claims 1-11 is proper.

**4. Examiner's Note:** Examiner has cited particular paragraphs, figures, columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see form PTO-892 (Notice of Cited References) for a list of more relevant prior arts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to UMAR CHEEMA whose telephone number is (571)270-3037. The examiner can normally be reached on M-F 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Jr. Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Uc

/William C. Vaughn, Jr./  
Supervisory Patent Examiner, Art Unit 2144